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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/31/2006

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EXAMINER

DANG, DUY M

ART UNIT

PAPER NUMBER

2624

DATE MAILED: 10/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/939,592

Applicant(s)

KOMAKI, YOSHIO

Examiner

Duy M. Dang

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 8/4/06.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 12-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 12-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 06, 2006 has been entered.
2. Claims 1-10 and 12-20 are currently pending and a new ground of rejections are presented in this Office action.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 1-3, 6-10, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sekine et al. (USPN 6,049,354. Referred as "Sekine" hereinafter) in view of White et al. (USPN 5,721,427. Referred as "White" hereinafter).

The advanced statements set forth in paragraph 3 of the previous Office Action mailed on November 11, 2005 are incorporated herein.

The advanced statements set forth in paragraph 3 of the Final Office action mailed on April 07, 2006 are incorporated herein.

With regard to the scope of the newly added features "correction process is maintained for each frame image until next scene change information acquired" to claim 1 as a representative claim, Sekine teaches these claimed features as described in figure 3. That is, the

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image-shake correction depicted at S4, for example, performs image correction until the incoming image immediately follows a scene change as depicted at S3 and described at column 5 lines 1-45. The same analysis is also applied to the amended claims 7, 9-10, and 12.

5. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sekine in view of White as applied to claims 1-3, 6-10, and 12 above, and further in view of Horiike (USPN 6,353,683. Referred as Horiike hereinafter).

The advanced statements as set forth in the preceding paragraph 4 are incorporated herein. It is noted that the combination Sekine and White fails to specifically teach the features of “wherein the acquiring portion generates the scene change information based on a differential image of an image of a current frame and a predicted image of the current frame predicted from an image of a previous frame from the current frame” as required by claim 4. However, such claimed features are well known in the art as evidenced by the patent to Horiike.

Horiike teaches, in the same field of invention that of image prediction, wherein the acquiring portion (i.e., 100 of figure 1) generates the scene change information based on a differential image of an image of a current frame and a predicted image of the current frame predicted from an image of a previous frame from the current frame (See figure 1. Note that the “Bgd” outputted from subtracter 106 corresponds to the so called “scene change information”; the input “Pg1” to subtracter 106 from calculation unit 120 corresponds to the so-called “predicted image of the current frame predicted from an image of a previous frame from the current frame”). The motivation to do so is to reduce calculation because only the difference is coded instead of the whole image thereby, reduce data coded for transmission and receiving. This also reduces temporal redundancy as suggested by Horiike in column 1 lines 15-25.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate such claimed features as taught by Horiike in combination with the combination of Sekine and White for that reasons.

Regarding claim 5, Horiike further teaches wherein the determining portion determines a correction process based on the predicted image (i.e., the subtracter 106 and motion compensation 122 in figure 1 refer to the so-called correction process).

6. Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sekine in view of Horiike.

The advanced statements as set forth in the paragraph 4 of the Office action mailed on November 01, 2005 with regard to Sekine as applied to claims 1-3, 6-10 and 12 are incorporated herein.

While Sekine fails to specifically teach the features of “wherein the acquiring portion generates the scene change information based on a differential image of an image of a current frame and a predicted image of the current frame predicted from an image of a previous frame from the current frame” as further required by claim 13, Sekine does teach the utilization of inter-frame coding as described in column 17 lines 31-33. However, such claimed features are taught by Horiike for example.

Horiike teaches, in the same field of invention that of image prediction, wherein the acquiring portion (i.e., 100 of figure 1) generates the scene change information based on a differential image of an image of a current frame and a predicted image of the current frame predicted from an image of a previous frame from the current frame (See figure 1. Note that the “Bgd” outputted from subtracter 106 corresponds to the so called “scene change information”;

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the input “Pg1” to subtracter 106 from calculation unit 120 corresponds to the so-called “predicted image of the current frame predicted from an image of a previous frame from the current frame”). The motivation to do so is to reduce calculation because only the difference is coded instead of the whole image thereby, reduce data coded for transmission and receiving. This also reduces temporal redundancy as suggested by Horiike in column 1 lines 15-25.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate such claimed features as taught by Horiike in combination with Sekine for that reasons.

Regarding claim 14, Horiike further teaches wherein the determining portion determines a correction process based on the predicted image (i.e., the subtracter 106 and motion compensation 122 in figure 1 refer to the so-called correction process).

7. Claims 15-19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sekine in view of White as applied to claims 1-3, 6-10, and 12 above, and further in view of Prentice et al. (US Pub 2003/0030729. Referred as “Prentice” hereinafter).

The advanced statements set forth in the preceding paragraph 6 with regard to the combination of Sekine and White as applied to claims 1-3, 6-10, and 12 are incorporated herein.

Regarding claim 15 as a representative claim, the combination of Sekine and Horiike fails to teach wherein the correction process is for correcting the image in terms of at least one of tone, hue, chroma, brightness and contrast. However, such claimed features are disclosed by Pretence, figure 7, for example. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate claimed features as taught by

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Prentice in combination with the combination of Sekine and White in order to allow for optimization of processing in separate modes and enhance image quality visually.

Likewise, claims 17-19 are also rejected for the same reasons as set forth in claim 15 above.

8. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sekine in view of Horiike as applied to claims 13-14 above, and further in view of Prentice et al. (US Pub 2003/0030729. Referred as "Prentice" hereinafter).

The advanced statements set forth in the preceding paragraph 6 with regard to the combination of Sekine and Horiike as applied to claims 13-14 are incorporated herein.

Regarding claim 20, the combination of Sekine and Horiike fails to teach wherein the correction process is for correcting the image in terms of at least one of tone, hue, chroma, brightness and contrast. However, such claimed features are disclosed by Pretence, figure 7, for example. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate claimed features as taught by Prentice in combination with the combination of Sekine and Horiike in order to allow for optimization of processing in separate modes and enhance image quality visually.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claim 19 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The recitation of “the image sensing apparatus of claim 13” at line 1 of claim 20 is unclear, indefinite, and improper antecedent basis because no image sensing apparatus is recited or defined in any of the preceding claim language so that it is not clear how this apparatus relates to all other claimed invention.

Claim Rejections - 35 USC § 101

11. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

12. Claim 10 and its dependent claim 18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The recitation of “a computer-readable recording medium for storing a computer program” in lines 1-2 of claim 10 does not necessarily invoke “a computer-readable recording medium encoded/stored with a computer program” as required by the 101. See page 53 of the USPTO “Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility” (Official Gazette notice of 22 November 2005). Amendment including such language would make claim statutory.

Claims 18 is also rejected for the same reasons.

Conclusion


13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duy M. Dang whose telephone number is 571-272-7389. The examiner can normally be reached on Monday to Friday from 6:00AM to 2:30PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew C. Bella can be reached on 571-272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

dmd
10/06


DUY M. DANG
PRIMARY EXAMINER